

#5

FORM PTO-1490. US Department of Commerce Patent and Trademark Office	
 OCT 13 1995	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	

ATTY DOCKET NO.
P-IX 1613

SERIAL NO.
08/471,622

APPLICANT
William D. Huse

FILING DATE
June 5, 1995

GROUP
1804-1812

U.S. PATENT DOCUMENTS

EXAM. INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
5	5,403,484	4/4/95	Ladner et al.	435	235.1	1/26/93
	5,223,409	6/29/93	Ladner et al.	435	69.7	5/1/91
	5,427,908	6/27/95	Dower et al.	435	5	5/1/90
	5,432,018	7/11/95	Dower et al.	435	5	6/20/91
5	5,270,163	12/14/93	Gold and Tuerk	435	6	8/17/92

FOREIGN PATENT DOCUMENTS

EXAM. INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION (YES/NO)
5	WO 88/06630	7.9.88	PCT			
5	WO 87/02671	7.5.87	PCT			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages)

5	Barbas et al., "Assembly of Combinatorial Antibody Libraries on Phage Surfaces: The Gene III Site". <i>Proc. Natl. Acad. Sci. USA</i> 88:7978-7982 (1991).
1	Better et al., "Escherichia coli Secretion of an Active Chimeric Antibody Fragment". <i>Science</i> 240:1041-1043 (1988).
5	Cabilly et al. "Generation of Antibody Activity from Immunoglobulin Polypeptide Chains Produced in <i>Escherichia coli</i> ". <i>Proc. Natl. Acad. Sci. USA</i> 81:3273-3277 (1984).

EXAMINER <i>KEN SORENSEN</i>	DATE CONSIDERED <i>23 MAY. 97</i>
---------------------------------	--------------------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 US Department of
Commerce Patent and
Trademark Office

ATTY DOCKET NO.
P-IX 1613

SERIAL NO.
08/471,622

APPLICANT
William D. Huse

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

FILING DATE
June 5, 1995

GROUP
1804 1812

U.S. PATENT DOCUMENTS

EXAM. INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE

FOREIGN PATENT DOCUMENTS

EXAM. INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION (YES/NO)

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages)

K	Caton, Andrew J. and Koprowski, Hilary, "Influenza Virus Hemagglutinin-Specific Antibodies Isolated from a Combinational Expression Library are Closely Related to the Immune Response of the Donor". <u>Proc. Natl. Acad. Sci. USA</u> 87:6450-6454 (1990).
	Clackson et al., "Making Antibody Fragments Using Phage Display Libraries". <u>Nature</u> 352:624-628 (1991).
	Cwirla et al., "Peptides on Phage: A Vast Library of Peptides for Identifying Ligands". <u>Proc. Natl. Acad. Sci. USA</u> 87:6378-6382 (1990).
	Derbyshire et al., "A Simple and Efficient Procedure for Saturation Mutagenesis Using Mixed Oligodeoxynucleotides". <u>Gene</u> 46:145-152 (1986).
	Devlin et al., "Random Peptide Libraries: A Source of Specific Protein Binding Molecules". <u>Science</u> 249:404-406 (1990).
K	Hellström et al. "Epitope Mapping and Use of Anti-Idiotypic Antibodies to the L6 Monoclonal Anticarcinoma Antibody". <u>Cancer Res.</u> 50:2449-2454 (1990).

EXAMINER

KEN SORENSEN

DATE CONSIDERED

23.MAY.87

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 US Department of
Commerce Patent and
Trademark Office

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

ATTY DOCKET NO.
P-IX 1613

SERIAL NO.
08/471,622

APPLICANT
William D. Huse

FILING DATE
June 5, 1995

GROUP
~~1804~~ 1812

U.S. PATENT DOCUMENTS

EXAM. INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE

FOREIGN PATENT DOCUMENTS

EXAM. INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION (YES/NO)

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages)

K	Hoogenboom et al., "Multi-Subunit Proteins on the Surface of Filamentous Phage: Methodologies for Displaying Antibody (Fab) Heavy and Light Chains". <i>Nucleic Acids Res.</i> 19:4133-4137 (1991).
	Huse et al., "Generation of a Large Combinatorial Library of the Immunoglobulin Repertoire on Phage Lambda". <i>Science</i> 246:1275-1281 (1989).
	Kunkel et al., "Rapid and Efficient Site-Specific Mutagenesis Without Phenotypic Selection". <i>Methods in Enzymology</i> 154:367-382 (1987).
	Marvin et al., "Structure and Assembly of Filamentous Bacterial Viruses". <i>Nature</i> 253:19-23 (1975).
	Parmley, Stephan F. and Smith, George P., "Filamentous Fusion Phage Cloning Vectors for the Study of Epitopes and Design of Vaccine". <i>Adv. Exp. Med. Biol.</i> 251:215-218 (1989).
	Parmley, Stephen F. and Smith, George P., "Antibody-selectable Filamentous fd Phage Vectors: Affinity Purification of Target Genes". <i>Gene</i> 73:305-318 (1988).
K	Plückthun, A. "Antibodies from <i>Escherichia coli</i> ". <i>Nature</i> 347:497-498 (1990).

EXAMINER

KBW SOR ENSRUS

DATE CONSIDERED

23 MAY 97

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 US Department of Commerce Patent and Trademark Office		ATTY DOCKET NO. P-IX 1613	SERIAL NO. 08/471,622
		APPLICANT William D. Hus	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		FILING DATE June 5, 1995	GROUP -1004 1812

U.S. PATENT DOCUMENTS

EXAM. INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE

FOREIGN PATENT DOCUMENTS

EXAM. INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION (YES/NO)

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages)

K	Reidhaar-Olson et al., "Combinatorial Cassette Mutagenesis as a Probe of the Informational Content of Protein Sequences". <u>Science</u> 241:53-57 (1988).
	Roberts et al., "Generation of an Antibody with Enhanced Affinity and Specificity for its Antigen by Protein Engineering". <u>Nature</u> 328:731-734 (1987)
	Sastry et al., "Cloning of the Immunological Repertoire in <i>Escherichia coli</i> for Generation of Monoclonal Catalytic Antibodies: Construction of a Heavy Chain Variable Region-Specific cDNA Library". <u>Proc. Natl. Sci. USA</u> 86:5728-5732 (1989).
	Scott et al., "Searching for Peptide Ligands with an Epitope Library". <u>Science</u> 249:386-390 (1990).
K	Skerra, Arne and Plückthun, Andreas, "Assembly of a Functional Immunoglobulin F, Fragment in <i>Escherichia coli</i> ". <u>Science</u> 240:1038-1041 (1988).

EXAMINER	DATE CONSIDERED
KEN SORSENSEN	23.MAY. 97

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 US D partm nt of
Commerce Patent and
Trademark Office

ATTY DOCKET NO.
P-IX 1613

SERIAL NO.
08/471,622

APPLICANT
William D. Huse

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

FILING DATE
June 5, 1995

GROUP
41004

U.S. PATENT DOCUMENTS

EXAM. INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE

FOREIGN PATENT DOCUMENTS

EXAM. INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION (YES/NO)

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages)

K	Smith, George, P., "Filamentous Fusion Phage: Novel Expression Vectors That Display Cloned Antigens on the Virion Surface". <i>Science</i> 228:1315-1317 (1985).
G	Ward et al. "Binding Activities of a Repertoire of Single Immunoglobulin Variable Domains Secreted from <i>Escherichia coli</i> ". <i>Nature</i> 341:544-546 (1989).
EXAMINER <i>Ken Sorenson</i>	DATE CONSIDERED <i>23. Mar. 97</i>

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.